

REMARKS

This is in response to the official action dated April 27, 2005.

Reconsideration in view of the following is respectfully requested.

Claims 1-21 are pending.

Claims 1-10, 12, 14-18 and 20 stand rejected under 35 U.S.C. 102(b) as being anticipated by Streiff et al (US Re. 36, 969). Streiff discloses a static mixer comprising a housing (7) for a product to pass through, a product inlet (47) and outlet to said passage, and a plurality of fins (30) attached to mountings (20) mounted within the housing in order to make contact with and provide a mixing action to a product passing through the passage. In contrast, the present application discloses a static mixer/heat exchanger comprising a housing (6) for a product to pass through, a product inlet and outlet, and a multiplicity of tubes (1) mounted within the housing, each provided with a passage (3) for a heat transfer medium to pass through and a multiplicity of heat exchanger fins (2a, 2b) distributed over the circumference of the tubes. Streiff discloses no means of providing a heat transfer medium into the mountings in the specification or claims, and in fact does not mention heat transfer means at all. Streiff does not disclose any form of heat exchanger device and thus could not possibly anticipate the invention of the present application. What Streiff does show is dispensing tubes (21) mounted on and integrated with mounting tubes (20) which serve to dispense a second substance into a substance flowing through the housing. However this is very different from the invention of the

present application because in Streiff the dispensed substance is mixed into the product flowing through the housing while in the present application the heat transfer medium flowing through the passage in the tubes mounted in the housing makes no contact whatsoever with the product flowing through the housing. The rejection of claims 1-10, 12, 14-18 and 20 under 35 U.S.C. 102(b) as anticipated by Streiff should therefore be withdrawn.

Claims 11 and 21 stand rejected under 35 U.S.C. 103(a) as obvious over Streiff ('969) in view of Mentzer et al. (US 6,042,263). The differences between the present invention and anything that can be found in Streiff have been discussed above with respect to the rejection of claims 1-10, 12, 14-18 and 20, and that discussion applies equally well to the present rejection of claims 11 and 21. The Examiner relies on Mentzer for a disclosure of longitudinal ribs located on the inside of a fluid passage housing to improve mixing. However, the use of longitudinal ribs on the inside of a fluid passage housing will not in any way overcome the differences previously pointed out between applicant's invention and the subject matter of the Streiff reference. The invention disclosed in the present application would therefore not be obvious to those skilled in the art from any reading of Streiff and Mentzer and this rejection should therefore now be withdrawn.

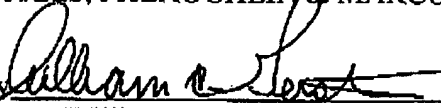
Claim 13 stands rejected under 35 U.S.C. 103(a) as obvious over Streiff ('969). The Examiner relies on Streiff for the disclosure of a "subsequent catalyst" and claims that one skilled in the art would find it obvious to have provided electric heating means in

the invention disclosed in Streiff to ensure temperature sufficient for catalysis. However, as stated above, Streiff makes no mention anywhere of a heat exchange or heating function in the disclosed device. Second, as read in Streiff, the reference to a "subsequent catalyst" (col. 1, lines 34-35) refers to a catalyst located outside the device disclosed in the invention where the gasses that are mixed in the invention are subsequently reacted. This infers nothing about any heating means that would necessarily be integrated with the mixing device disclosed in Streiff. Thus claim 13 would not be obvious to one skilled in the art upon a reading of Streiff and this rejection should therefore now be withdrawn.

Claim 19 stands rejected under 35 U.S.C. 103(a) as obvious over Streiff ('969). The Examiner relies on Streiff for the disclosure of "flue gasses" passing through the housing and "ammonia" passing through the tubes and claims that this disclosure implies a heat transfer through the tubes. Again, as discussed above, the invention disclosed in Streiff is a mixing device, and Streiff makes no mention of any heat transfer or heating functions of said device. Streiff discloses no difference in temperature between the "ammonia" and "flue gasses" (col. 4, lines 43-46). In addition, the tubes disclosed in Streiff are meant to provide a substance to be mixed into a substance flowing through the housing. Thus in the case of the ammonia reference, Streiff is disclosing an example of two substances that may be mixed together in the disclosed invention and is not discussing one medium that can be used to pass through sealed tubes to heat another as in the present application. The disclosure of a mixing of "ammonia" and "flue gasses" in Streiff could not make claim 19 of the present application obvious to one skilled in the art, and the rejection of this claim should therefore now be withdrawn.

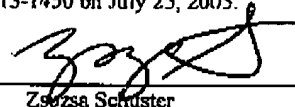
Wherefore, allowance of all claims is earnestly solicited.

Respectfully submitted,  
NORRIS, McLAUGHLIN & MARCUS, P.A.

By   
William C. Gerstenzang  
Reg. No. 27,552

WCG/gkg/zs

I hereby certify that this correspondence is being transmitted via facsimile, no. (571) 273-8300 to the United States Patent and Trademark Office, addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on July 25, 2005.

By   
Zsuzsa Schuster  
Date July 25, 2005